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10/675,648	09/30/2003	Kenneth E. Salsman	ITL.1005US (P16610)	5824

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EXAMINER	
KOVALICK, VINCENT E	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/675,648
Filing Date: September 30, 2003
Appellant(s): SALSMAN, KENNETH E.

Timothy N. Trop
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 3, 2008 appealing from the Office action mailed November 27, 2007

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

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(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

The statement of the status of claims contained in the brief is correct.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal(10) Response to Argument

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

U. S 7,071,929	Fujii	7-2006
U. S. 6,762,743	Yoshihara et al.	7-2004
U. S. 6,317,121	An	11-2001
Pub. No. US 2003/0147029	Liu	8-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The 35 U.S.C. 112, second paragraph rejection of claims 1-3, 5-9 and 27-30 as indicated in the Final Office Action dated November 27, 2007 is herewith **withdrawn**.

Claim Rejections - *35 U.S.C.* 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this' section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21 (2) of such treaty in the English language.

1. Claims 1, 9 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Liu(2003/0147029A1).

Liu discloses a method and an apparatus for providing a low voltage signal to a liquid crystal cell and driving a data electrode of the liquid crystal cell with an ultra low voltage not grater than 3.3 volts(see paragraphs[0046] - [0049] and figures 5a and 10).

As to the claim 9, Liu also utilizes a retarding film less a quarter wave (see paragraph[0045]).

Claim Rejection – 35 U.S.C. 103

2 . The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2-3, 5-6 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Fujii (7,071,929B2).

Liu is discussed above. Fujii is cited to show that the concept of driving an LCD cell with digital low pulse width modulated square wave pulses which are updated every frame is old(see abstract; column, lines 47-67; column 3, lines 1-67). Thus, it would have been obvious to one of ordinary skill in the art to modify the of Liu with the above noted teachings of Fujii such that to drive the LCD cell of Liu with variable low digital pulse width modulated voltage so that to select a desired gray level because both references are related to driving an LCD cell with low voltages.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Yoshihara et al(6,762,743B2).

Liu is discussed above. Yoshihara et al is cited to show that the concept of driving an LCD cell at a frequency greater than 120 hertz having at least two different colors is old(see column 8). Therefor, it would have been obvious to one of ordinary skill in the art to modify the system of Liu with the above noted teachings of Yoshihara et al such that to drive the LCD cell of Liu at frequencies greater than 120HZ and having at least two colors because it is conventional for using such frequencies for reducing image flickering during the LCD driving.

5. . Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu and Yoshihara et al as applied to claim 7 above, and further in view of De Smet et al. l(WO2004/001715A1).

Liu and Yoshihara et al are discussed above. De Smet et al is cited to show that the concept of utilizing a color wheel(17, see figure 7) for generating at least two colors for driving of an LCD cell is old. Thus, it would have been obvious to one of ordinary skill in the art to apply the above noted teaching of

De Smet et al to the modified system of Liu such that to utilize a color wheel for generation of at least two colors because such is an alternative equivalent of using color filters which is considered to be within the purview of one or ordinary skill in the art.

6. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of An(6,317,121B1).

Liu is discussed above. An is cited to show that the concept of utilizing at least two buffers to provide frame updates in an LCD driving circuitry is old(column 5, lines 1-67 and column 6, lines 1-26). Thus, it would have been obvious to one of ordinary skill in the art to modify the system of Liu with the above noted teachings of An such that to provide double buffers in the system of Liu in order to provide frames updates because both references are related to driving of LCD display device with low voltages.

(10) Response to Argument

Relative to Applicant's Argument A. "Whether claims 2 and 28 are indefinite under 35 U.S.C. 112, second paragraph for failing to particularly point out and distinctly claim the subject matter of the invention"

The 35 U.S.C. 112, second paragraph rejection of claims 2 and 28 is **withdrawn** as indicated in item 9 (**Grounds of Rejection**) hereinabove.

Regarding Applicant's Argument B. Whether claims 2 and 28 are unpatentable under 35 U.S.C. § 103(a) over Liu (US 2003/0147029) in view of Fujii (US 7,071,929).

Applicant's argument teaching "driving a liquid crystal call with a pulse width modulated signal" is not persuasive.

Based on the language of said claims 2 and 28, . Fujii is cited to show that the concept of driving an LCD cell with digital low pulse width modulated square wave pulses which are updated every frame is old (see abstract; column, lines 47-67; column 3, lines 1-67). Thus, it would have been obvious to one of ordinary skill in the art to modify the of Liu with the above noted teachings of Fujii such that to drive the LCD cell of Liu with variable low digital pulse

width modulated voltage so that to select a desired gray level because both references are related to driving an LCD cell with low voltages.

For the above reasons, it is believed that the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/Vincent E Kovalick/
Examiner, Art Unit 2629
July 2, 2008

/Bipin Shalwala/

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